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ABSTRACT

In 1967 the University of Cincinnati initiated one of the first graduate programs in health planning to provide qualified professionals to staff health planning agencies. In 1974 the university began to develop an external degree program to meet the needs of employed health personnel. The program incorporates individualized, self-paced, student-directed learning toward competency goals. Enrollment is in geographic clusters for regular meetings. The curriculum includes a 36-credit core--14 credits in electives, a 9-credit Comprehensive Action Plan (field experience), and one credit for designing the individual program. More than 200 students are enrolled, 43 percent women, 14 percent minority group members. All are employed full-time. The elements and concerns of the program are briefly described: the learning resource (curriculum) units, telecommunications, intensive summer institute, quality assurance, costs and benefits, observations during the first few years, and program potential. A program evaluation by Mary Stefl looks at student characteristics, quality issues, program impact, special problems for nonresidential students, and future evaluation efforts. Tables provide data on students (sex, ethnic background, number with advanced degrees, employment status and type, enrollment trends, enrollment and program level, progress rates), completed Comprehensive Action Projects, and learning resource units offered. Descriptions of available learning resource units are appended. (MSE)

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University Without-Walls External
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# The University of Cincinnati External M.S. Program in Health Planning/Administration: Progress Report, 1979

But novelists write for countless different reasons.... Only one same reason is shared by all of us: we wish to create worlds as real as, but other than the world that is. Or was. This is why we cannot plan. We know a world is an organism, not a machine. We also know that a genuinely created world must be independent of its creator; a planned world (a world that fully reveals its planning) is a dead world. It is only when our characters and events begin to disobey us that they begin to live.

- John Fowles
The French Lieutenant's Woman

## I. THE PROGRAM

In 1967, the University of Cincinnati initiated one of the nation's first graduate programs in health planning, in response to P.L. 89-749, to help provide qualified professionals to staff health planning agencies.

In July, 1974 the University began to develop an external or non-residential option within that program to meet needs of employed health personnel, with little more than a script and some seed money provided by the Bureau of Health Manpower.

Now, after five years of implementation, our script is no longer a work of fiction. It has assumed a reality that is different from and greater than anything we anticipated, a reality that is somewhat awesome in its potential for impact on community health and on health and medical care services.

The program is based on the concept of individualized, self-paced, student-directed learning to achieve competency goals. It is designed for persons already working or involved in the community health system, with special emphasis on those who might not otherwise

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have access to graduate education.

Students are generally enrolled in "clusters" of persons within a geographic area who are able to meet periodically, generally at least once each quarter for two days. These meetings may be held on campus or in other cities convenient to students.

Students, in cooperation with faculty, design individualized programs of study to meet competency goals and may utilize a variety of learning opportunities and experiences to achieve their goals, including: Learning Resource Units provided by the University of Cincinnati, courses at other universities, tutorials, and apprenticeships.

The student is expected to complete sixty quarter credit hours of graduate study, including a thirty-six credit core, fourteen credits in electives, a nine-credit Comprehensive Action Project, and one credit for Learning Plan Design. Core areas include applied health planning theory; applied health administration theory; health care systems; consumer advocacy, legal and ethical issues; fundamentals of health and disease; and data management.

Through the Comprehensive Action Project the student is expected to demonstrate his or her ability to bring about significant action to improve community helth and/or to improve the delivery of health or medical care services.

Students generally enter the program with a two day on-campus session, during which they meet faculty and other students, design their learning plans, identify resources they need, and begin work.

## II. THE STUDENTS

More than 200 active students are now enrolled. Forty-three percent are women, fourteen percent are members of minority groups. All are full-time employees of a variety of health facilities and agencies, such as health departments, alcoholism agencies, hospitals, health systems agencies, neighborhood health centers, and drug abuse

agencies. Four have medical or dental degrees, two are Ph.Ds, and several have master's degrees in related fields, such as nursing, nutrition and hospital administration. The average age is thirty-five. The two largest groups of students are in the states of Ohio and Tennessee, where the state health departments have been very supportive and have contracted for services to qualified students. Other students are scattered in West Virginia, Kentucky and Indiana, with one as far west as Minnesota and one as far east as Philadelphia.

The quality of these students is impressive. They are mature, articulate, and motivated; they convey a sense of competence, self-assurance, and leadership ability.

III. LEARNING RESOURCE UNITS

Learning Resource Units are a key element of the program. Learning Resource Units are not programmed courses; they are not correspondence courses. In a student-centered program, they are creative resources designed to help health professionals who are on the firing line to attain specified competency objectives. They vary in format, but generally contain a study guide, readings, references, lectures or discussions on audio cassettes, and exercises designed to help the student use his or her community and work setting as learning resources. In a sense, they are technical assistance manuals, designed to help professionals function as masters of a body of knowledge, with faculty serving as consultants. Thus students, through the process of applying theory and skills presented in the Units, can have immediate impact on the analysis of health problems and services and on decision-making in their agencies and in their communities.

Units are now available on a range of topics. For example, a series on data-based health planning covers the census, population descriptors, migration and mobility, vital statistics,

morbidity, and the life table. Another series, on community health estimates, deals with various aspects of epidemiology. Other units are available on concepts of community, health economics, program evaluation, systems theory and quantitative systems analysis, management theory, planning for acute medical care services, and ethical issues.

Units can be combined in various ways into what we call modules, to meet individual needs of students and fit into their learning plans.

Within the University, Learning Resource Units are listed as courses. They have course numbers; they offer specified numbers of credits; students register for them as they would for courses.

IV. TELECOMMUNICATIONS

A new element was added when in 1977, the Program was awarded a contract by the National Institute of Education to develop a plan for use of telecommunications technology in delivery of the external degree program. This led to a contract with the Appalachian Regional Commission to utilize the resources of the Appalachian Educational Satellite Program to serve some eighty health personnel in thirteen Appalachian states during the 1978-79 academic year. In place of cluster meetings, audio and video teleconferences have been used to link these students with each other and with the faculty for lectures and seminars on a regular basis.

V. INTENSIVE SUMMER INSTITUTE

At the request of students, four intensive one-week courses were offered from June 18 through June 29, 1979, at the University of Cincinnati campus. Two courses were offered each week. The courses covered legal issues in health planning, agency resource development (grantsmanship), public relations, and health and human behavior.

Approximately twenty-five students, some utilizing vacation time, enrolled in each course. The courses also attracted some non-matriculated students. The courses, each of which offered two graduate credits, were designed to require pre-campus readings and post-campus written assignments. Because of the success of the institute, it is likely to be repeated in the future.

VI. QUALITY

To assure and protect the quality of the program, we follow a variety of procedures. For example:

1. The external degree program has been integrated with our on-campus graduate program. Students in both programs must satisfy the same degree requirements; both programs draw upon the same faculty.

2. Our program is competency-based, and therefore emphasizes knowledge and behavior or performance which the student must demonstrate in order to earn credit and to graduate.

3. All new Learning Resource Units must be approved by our own faculty, just as all new courses must be approved. Unlike many traditional courses, in which syllabi and reading lists provide an inaccurate picture of what is actually taught, the Learning Resource Units provide visible and tangible evidence of what the student is exposed to and what the student is expected to accomplish.

4. We try to gear our Learning Resource Units to the Carnegie unit for establishing course credits, that is, one hour of credit requires thirty hours of contact and preparation by the student. We have found that students work an average of 38.3 hours for every hour of credit they earn through our Learning Resource Units.

5. We have built in an evaluation system which regularly brings us feedback from students on the Learning Resource Units and

on the program generally. Feedback is also obtained from supervisors and employers. Students tell us that the Units, which are concise and organized around performance objectives, are more demanding than university courses, where time is often wasted on extraneous matters.

VII. COSTS AND BENEFITS

It is difficult to estimate what the actual costs of operating a program such as ours will be. Many of the expenses incurred during the past few years were developmental, and would not be repeated. Yet several important factors in any cost assessment are already quite apparent:

1. Students remain in their jobs and continue to be productive; the employer is not faced with the problem of finding temporary replacements for a year or more.

2. Students do not require traineeship support, either from their employer or from Federal sources.

3. Because students can maintain their incomes, many can afford such expenses as part-time tuition, books, and travel. However, in many cases their employers or other agencies have been willing to assume or subsidize these costs, as in the case of the Ohio and Tennessee state health departments.

4. Because students remain in their jobs and are often in positions of influence, they can apply what they are learning almost immediately, hopefully with immediate benefits to their communities. The time lag in application of new knowledge may be significantly reduced.

5. The interaction between faculty and students who are employed in positions of influence produces another cost/benefit relationship. The questions asked of faculty result in a form of free consultation or technical assistance to the agency. Obviously,

this interaction creates costs for the University and demands upon the faculty, but the benefits may far exceed the costs.

6. Students and their employers provide a very important source of continuing input on what is happening in the health world, and what are the competency needs of health planners and health administrators. This gives the University valuable information for use in faculty development, curriculum development, and research design.

VIII. FINDINGS

Much of what has developed in the past five years has followed our original script. Which is understandable; we had a contract and a work plan to follow. But several important things have occurred that we did not anticipate:

1. We expected a great deal of interest from prospective students, and this has happened. We have not advertised or marketed the program, but we receive a constant stream of calls and letters from individuals who have somehow heard about it. What has been surprising is the interest of agencies and organizations which wish to contract for educational services for staff or other health professionals. Contracts have been worked out with the state health departments in Tennessee and Ohio, and the Cincinnati Health Department; others are under discussion. These arrangements have made possible clustering of students.

2. Surprisingly, response to the program by students and their employers has been almost uniformly positive and enthusiastic. Students tell us that:

a. They could not go to graduate school if a program such ours were not available. They cannot leave their jobs to enroll

in traditional on-campus programs.

b. The goal of attainment of a graduate degree, or credential, is an important motivating force for students. They are not merely interested in continuing education courses.

c. Avoidance of the competition that exists among students in a traditional campus setting is a positive factor. In our program, students compete against themselves.

d. They now feel more competent, more effective, more professional in their jobs.

e. They are generally satisfied with the Learning Resource Units they have used. They consider the Units to be rigorous and immediately useful in terms of dealing with problems they face in their jobs.

3. We have found considerable interest among other universities. Several have visited Cincinnati or met with us elsewhere to discuss purchase of our Learning Resource Units, or development of faculty sharing arrangements or development of consortia. Some interesting new forms of cooperation with other universities are a definite possibility. There is also a major possibility for impact on higher eduction generally.

4. Administration. One major finding thus far is that administration of the program is important, perhaps as important as curriculum. Administration must be conscious and aggressive in order to serve off-campus students.

The University support system -- such as libraries, bookstore, registrar -- which quietly and routinely serves on-campus students and which we take for granted, is not equally accessible to off-campus students. Thus we have found it necessary to monitor the various contracts students may have with University units, such as the registrar, the bursar, and the bookstore, to assure that student needs are being met. It has been necessary for us to make arrangements with the University bookstore to handle mail orders. It has

been necessary for us to intercede with other University units in regard to errors in student fees, or errors in computer printouts. In effect, our cluster managers must act as ombudsmen for their students.

We have learned that we must be concerned with timing. For example, on-campus students receive a course syllabus at the first session of a course, and are generally able to purchase books or find materials in the University libraries almost immediately. Off-campus students must be sent a list of references they will need at the time they pre-register, so that they can begin the process of book purchasing and searching at local libraries several weeks before the Quarter begins. Otherwise they fall behind schedule very quickly.

5. Faculty resources. We have found that working with students who are generally older professionals, actively engaged in the planning and administration of a wide range of health services, and who are pursuing individualized programs of study, places heavy demands on our faculty. Despite the versatility of our faculty, we do not have the breadth of expertise to respond to all the needs of such a diverse student body proceeding through a curriculum which attempts to meet individual student needs.

6. Support systems. We have found that the support of health departments and other agencies has been invaluable. Our experience with these agencies suggests that in order to assure support systems for off-campus students, we may want to move toward a model which incorporates contracts for educational services with community health organizations, agencies and facilities, professional or trade organizations, centers for health planning or similar entities, which provide for:

a. Use of that entity's resources to help serve students. This might include identification of qualified adjunct field faculty; use of newsletters or journals or other internal communications media; use of annual meetings or conferences for delivery of educational services; use of library resources; tuition subsidy; commitment to reduce workload of students while enrolled; contributions of personnel to assist in planning, teaching and/or administration of the program.

b. Appointment of an advisory committee to assist in adapting curriculum to meet special needs of students; to assist in student recruitment; to assist in evaluation of content and delivery of educational services by the University; to assist in resolving problems which may arise.

Such a model may be valuable in a number of ways:

- it would assist in clustering of students, both on a geographical basis and on the basis of common interests;
- it would utilize an ongoing supportive organizational and administrative framework, which may help to reduce costs of the program;
- it would help assure University accountability to students and to the community;
- it would facilitate service to students who might otherwise be difficult to serve, for example, students in rural areas;
- it would help the University in planning its resource allocation, that is faculty and support services.
- it would help to provide professional peer group support and reinforcement for students;
- it would provide some assurance that students enrolling have some commitment to their education, to the profession, and to the community;

- it would provide some assurance that new job opportunities and career development opportunities would be available after graduation.

At this early stage, it is evident that our script for an external graduate degree program works.

IX. POTENTIAL

Continuing experience with the external degree program and assessment of its potential suggests exciting possibilities for impact on the nation's health and medical services system which traditional university programs do not and perhaps cannot have.

Traditional residential graduate programs in health planning, hospital and health administration enroll a somewhat haphazard, small group of students; individuals seeking the training and the credentials to enter the field, and individuals on leave from jobs in the field to acquire the training and credentials to further their careers and their effectiveness. Upon graduation, they tend to scatter to a variety of agencies and facilities, and to a variety of communities. They join the few health planners and administrators in the United States estimated to hold a master's degree in health planning or administration.

They are few, they are isolated, and their impact is diluted. Their ability to combine and cooperate to form a critical mass which might bring about desired change in the health and medical services system is limited.

The University of Cincinnati external degree program, on the other hand, offers unusual possibilities for impact. For example:

1. We have the potential to enroll the entire professional staff of a health agency or facility.

2. We have the potential to enroll a significant number of health and medical services system personnel in a specific community or geographic area.

3. We have the potential to enroll board members as well as staff.

4. We have the potential to enroll a significant number of persons who may be scattered geographically, but who share common interests and deal with common problems, for example, in administration of Health Systems Agencies, or HMO's, or extended care facilities or PSRO's or rural health services, or inner city health services. We can provide communications links to help form networks of people who share problems and solutions.

5. We have the potential to enroll a mix of health professionals in a community, such as physicians, nurses, hospital administrators, health educators, and others, and promote institutional interaction and interdisciplinary cooperation.

6. We have the potential to enroll women, members of minority groups, and personnel of small or isolated agencies and facilities who might not otherwise be able to leave their communities and their jobs in order to enroll in graduate school, and who might thus be able to introduce new perspectives into policy on health and medical services in their communities.

7. We have the potential to enroll a significant number of members of specific professional and trade organizations in the health and medical services industry.

8. We have the potential to enroll large numbers of students in learning programs which are individualized, yet probably no more costly than traditional curricula.

9. We have the potential for offering a large scale, non-residential continuing education program to serve persons and agencies not interested in a degree program.

10. We have the potential for developing an external baccalaureate program to meet needs of health personnel at that level, and to establish a career ladder of education.

As our script has developed, it has identified still another unanticipated area for impact. Wehave found that where we have students who are employed in the same agency or in the same services system, analysis of the work they turn in begins to reveal patterns and relationships which they had not seen, and perhaps could not see because of their intimate involvement. Because of the external, macro perspective which our faculty brings to an overview of the work of related students, we are in a postion to identify problems and resources which are otherwise invisible. By alerting those involved to look for and at these problems and resources, perhaps with our assistance, we may provide a particularly valuable service.

Thus the University of Cincinnati, and other universities which establish non-residential programs such as ours, have the potential for large scale, high quality high impact educational intervention in the nation's health and medical services industry, to make a serious effort to assist the industry to work toward new national health priorities.

Our original script called for a modest external degree program, designed to help meet education needs of individuals in the health and medical services field who could not or would not enroll in a traditional on-campus program. As the project has achieved a life and identity and reality which we did not anticipate, it has introduced us to a new dimension in university-community cooperation which has exciting possibilities for social change. There is a new script developing, and we look forward to working on it.

# Evaluation of the External Degree Program

- Mary Stefl, Ph.D.

## Introduction

In the Spring of 1975, a group of students sponsored by the Tennessee Department of Health began working towards the M.S. degree in Community Health Planning/Administration from the University of Cincinnati on a non-residential basis. This was a small and in some ways a pilot group; it was not until the Fall Quarter of that year that the program was fully operational and enrolling students throughout Ohio and neighboring states. By September of 1978, the program had had three full academic years of experience and enrollment had increased each year.

The funding contract had stipulated that at least twenty students should participate in the program during its four-year duration; given the necessary planning and development required, twenty students seemed a number feasible at that time. Yet by September, 1978, a total of 192 students had participated in the program, and nineteen of these students had obtained the master's degree.

Much has happened over these first three years, obviously far more than was originally foreseen. The program has grown not only in enrollment but also in terms of available courseware. The delivery and administrative systems have evolved as a function of experience and changing program personnel. An evaluation of such a dynamic program is always problematic; independent variables within the overall program are confounded and virtually impossible to isolate. Funding limitations have precluded the use of a control or comparison group of students. Valid impact data may not be obtainable until several years from now.

Even so, the faculty has made some attempt to monitor the progress and development of the program. The analysis presented here will rely on data from various sources. Demographic data are maintained to describe the student body. Upon completion of each Learning Resource Unit (LRU), students are asked to fill out a Unit Evaluation Form; to date, some 298 of these forms have been summarized. A comprehensive evaluation questionnaire was mailed to all students and graduates in August of 1978; a total of ninety-three students responded. Finally, in-depth exit interviews have been conducted with all of the nineteen program graduates. Whenever possible, these interviews were conducted on a face-to-face basis. The remainder were done by telephone.

This information has been helpful in re-directing program emphasis. It can also be used to determine some measure of the program's impact and success in meeting its stated objectives. The goal of serving a minimum of twenty students has obviously been met; of concern in this analysis, then, will be the process and input-oriented variables which define and lead to success in the program. Some measure of the program's impact on the community health care field will be attempted. Any conclusions, however, must be tempered

by design and data limitations. Lacking a control or comparison group, any generalizations to other types of students or comparisons with other types of programs are simply not feasible at this time.

Student Characteristics

As noted above, a total of 192 students participated in the non-residential program in community health planning/administration between the spring of 1975 and the summer of 1978. At the time they began the program the mean age of these students was twenty-five. Overall, 57.3 percent are men and 42.7 percent are women, although, as Table 1 illustrates, this distribution has changed somewhat over time. As the program has matured, it has begun to attract nearly equal numbers of men and women. Table 2 shows that ethnic minorities constitute 14 percent of the total student population.

The background of these students is also noteworthy. Some 12 percent already have advanced degrees in other areas; physicians, dentists, Ph.D.s, as well as a variety of other master's degree recipients are represented (see Table 3). These are the students who most often report the need for specific types of training and skills which they can apply in their current employment situations.

To qualify for admission to the program, students must be employed full-time in the community health system. As Table 4 illustrates, students have been drawn from a variety of health facilities and agencies, ranging from hospitals to health departments to health systems agencies. It is obvious that program students represent well the variety of administrative employment settings in the community health field.

Table 5 lists employment categories for all non-residential students at the time they matriculated. It should be noted that nearly 40 percent are heads of programs or agencies and that another 10.4 percent hold second-in-command positions.

These students clearly differ from the typical on-campus graduate student. Many hold reponsible positions. They are, by and large, mature professionals. If it can be assumed that assistant administrators as well as administrators and program directors influence or make policy decisions, then at least half of these students are in positions where increased skills and knowledge could immediately be applied to bring about change in the delivery of health services. Thus, the program has significant potential for impact.

One evaluation goal has been to determine a series of input variables which would predict success, that is, graduation. Table 6 shows the number of students matriculating each academic year as well as the current status of those students. Note that the 1974-75 cohort represents those students beginning in the Spring of 1975.

A total of nineteen students have completed the program to date (summer, 1978). Sixty-two are no longer active; that is, they have withdrawn from the program or have not registered for or completed coursework, contacted faculty, or attended Cluster meetings during the 1977-78 academic year. This produced, then, an overall attrition

rate of 32.3 percent. Given the developmental nature of the program, this rate is not inordinantly high. Students were often initially unclear as to the demands of the program, and program staff were not always able to advise and screen potential students adequately due to their own inexperience with a non-residential approach to graduate education. It is of interest to note that none of the initial cohort of students has withdrawn from the program, despite the fact that this is the group that experienced the maximal amount of difficulties and delays in the program's early stages.

In Table 7, the status of these same students is presented by Cluster. Attrition rates are also shown; they obviously vary by Cluster membership. Cluster managers have changed over time for all groups except the Alcoholism and Navajo groups; hence it is difficult to infer any relationship between attrition rate and Cluster management style.

The lower-than-average attrition rates for the Alcoholism and Tennessee Clusters may relate instead to agency support systems; all students in the Alcoholism Cluster and the majority of the Tennessee Cluster students received tuition subsidy and travel funds for Cluster meetings from their state agencies. In addition, they share common professional concerns and act as cohesive groups. By way of contrast, the majority of Ohio Cluster students are self-supportive, from a wide variety of professional settings, and share fewer day-to-day interests. The attrition rate of the Ohio Cluster is higher (42.9 percent).

However, the highest attrition rate (50 percent) is experienced by the Cincinnati Health Department Cluster. These students are also subsidized financially and sponsored by a common agency; their group cohesiveness, too, should be high. In this case, however, the high attrition rate might best be explained by an initial misunderstanding of the nature of the program.

Of special interest is the Free Cluster. These students are widely scattered geographically and do not meet regularly for Cluster meetings. It would be expected that this group would have the lowest cohesiveness, and yet the Free Cluster demonstrates the largest proportion of graduates and a low attrition rate (17.4 percent). Obviously, factors other than agency support and group cohesiveness foster success in the non-residential program.

Logically, students withdrawing from or failing to complete the program should aid in the delineation of success factors, e.g., background variables common to these students would not be common to those students who eventually complete the program. Women evidence a somewhat higher attrition rate than men (40.2 percent of the total women enrolled versus 26.4 percent for men), and a small difference exists between the attrition rates for Blacks (39.1 percent of the total Blacks enrolled) and Whites (30.9 percent). Unfortunately, no other distinguishing demographic variables can be isolated.

Typical reasons for leaving the program include finance, job changes, lack of time, and a realization that the program is not suited to the individual's needs. The "job change" factor is the only reason unique to the non-residential program; in such cases the student has found employment outside the community health field or has left the

agency which is subsidizing costs of education and can not afford to continue without financial assistance.

However, for approximately half of the inactive students, no reason for leaving is recorded. These are students who simply "disappear" and fail to respond to mailings or phone calls. Eventually they are sent a letter asking their intentions regarding the program; if they do not respond to this letter, they are officially considered inactive. It is assumed that some of these students have left the health field; that some are dissatisfied with the program and/or its administration; others may have enrolled with limited objectives, for example, to have access to specific Learning Resource Units for continuing education purposes. A more rigorous follow-up procedure should clearly be implemented to ascertain more specific reasons. Such a follow-up may also aid in the description of the student who is not amenable to non-residential study.

One measure of success in the program might lie in quantifying a student's progress through the non-residential program. Progress rates were determined for all active students and program graduates by dividing the total number of credit hours completed by the number of academic quarters that each student had been involved with the program. Many students do not always register for courses each quarter; even so, these "empty" quarters were figured into the completion rates on the assumption that they were used by students to complete outstanding LRUs from previous quarters. Any advanced standing or transfer credits were not used in the computations. Progress rates were not determined for inactive students because it was not often possible to determine exactly when each student had decided not to continue in the program.

These rates are presented by Cluster in Table 8. The program recommends that each student register for and complete six credit hours each academic quarter; at that pace, students can anticipate spending fifteen to twenty hours per week on their studies. As Table 8 illustrates, the discrepancy between this recommended goal and the actual mean progress rate (3.1 hours per quarter) for all active students and program graduates is striking. Other data show that only 14.3 percent of the students progress at the recommended rate or faster. While these figures are somewhat contaminated by unusual administrative problems and delays in the program's early stages, they still fall below expectations.

However, the large number of students not completing course work at the recommended rate suggests that it may not be viable. Students frequently report that unusual and generally transient job and family pressures cause them to fall behind; such disruptions may be inherent for the non-residential student in a responsible job position. It will be instructive to examine student progress rates for future academic years, now that the program is fully operational and administrative delays have been minimized. If the large discrepancy between the recommended and actual completion rates persist, a somewhat lower average courseload should be suggested to students.

Also of note is the lack of difference in completion rates between Clusters for all active students (Table 8). Clusters do vary in their cohesiveness, but Cluster cohesiveness is apparantly unrelated to student success.

Table 9 presents progress rates by sex. Women appear to progress somewhat faster than men (3.7 versus 2.9 credits per quarter). The completion rate for program graduates is, of course, noticably higher than the overall mean rate; at 6.8 credits per quarter, it exceeds the currently recommended rate.

At this stage, it is difficult to determine what factors lead to success in this or any other type of non-residential program, or to describe the student best suited for non-traditional education. Group cohesiveness, which is inferred in Clusters with sponsoring agencies, may in certain cases reduce attrition but does not seem related to progress rate. It is too soon to determine whether or not cohesiveness relates to eventual success, i.e., obtaining the M.S. degree, irrespective of the time frame. Women progress through the program somewhat faster than men, yet are more likely than men to withdraw or become inactive.

An examination of the program's nineteen graduates is similarly unrewarding. All appear to be dynamic and highly motivated persons, yet common background variables are largely lacking or obscured. However, eleven of these individuals (57.9 percent) are in administrative positions; this is a percentage somewhat higher than that evidenced by all students combined (39.1 percent). In addition, virtually all graduates report during the exit interviews that they attended Cluster meetings regularly and discuss the benefits of the faculty-student and student-student interactions obtained at these meetings. While data on Cluster meeting attendance are not available to support these reports, this is a variable which warrants future attention as a possible predictor of success.

Quality Issues

Because of the non-traditional nature of the non-residential program, quality issues have been of particular concern. Quality control measures have been built into the development of the Learning Resource Units through peer review and student evaluation. Focus here will be on student performance.

Traditional examinations are not part of the program. Thus, students' performance cannot be directly compared. Students are instead required to produce papers which are competency-based, which require them to apply skills and knowledge. What each student produces is unique to his or her agency and/or geographic setting, and cannot be copied from another student's paper or written materials. Uniqueness does not necessarily imply quality, but it does preclude cheating or plagiarism. Given that all papers are original, it is ultimately the responsibility of the program faculty to assess the quality of students' papers.

All program faculty are involved with both non-residential and on-campus options, and most of the Learning Resource Units were written and evaluated and graded by full-time program faculty. Little use is made of part-time or adjunct faculty. Since the majority of the curriculum in the two options is the same, faculty expect the same quality of performance from both groups of students. Assigning quality to a non-residential student's performance by comparing it to an on-campus student's performance may not be ultimately valid, since the characteristics and learning environments of these groups differ widely.

Other quality mechanisms were built into the Learning Resource Units themselves. One mechanism is the specification of learning objectives and outcomes. Another is the design based on the Carnegie system, which specifies thirty contact and study hours for each quarter hour of credit. Students are asked to complete a Unit Evaluation form for each LRU. One question asks them to estimate how much time was involved in completing that Unit. Data have now been summarized from 298 Evaluation Forms. To date, the overall mean completion time per credit hour is 30.6 hours, a result which might be considered suspect were not the range of time estimates so great. Table 10 shows the mean completion times per credit hour for each Learning Resource Unit.

Some measure of quality may be gained from the perceptions of the students themselves. The evaluation questionnaire mailed to students asked if they had taken other on-campus graduate level courses before entering the Cincinnati program. Some 59.8 percent of those responding indicated that they had. Of these students, 51.9 percent indicated the LRUs "produce more usable competencies" than on-campus courses, and 85.2 percent noted that they "demand more time and effort." Courses which demand more time and energy are not, of course, necessarily courses of high quality. These data do provide some verification, however, for the numerous student comments concerning the rigor of the program.

The exit interviews also provide insight into students' perceptions of the program's quality. These interviews were conducted just before or just after students' graduation, at a time when they could view their experience in the program with some perspective. With only one exception, students evidence strong positive feelings about the program and the learning experiences it provided. And it is of some interest that the one student voicing negative reactions has since referred several prospective students to the non-residential program.

One student discussed how the Cincinnati program had enlarged his scope and provided him with a comprehensive picture of the health field. He stated "Overall, I am highly impressed by the program." Another student coordinates an educational program at a community college. She feels that, at least for older students, the non-residential program provides a better learning experience than the "classic" on-campus experience. One Cincinnati-area graduate had taken a number of Community Health Planning/Administration on-campus courses before switching to the non-residential option. When comparing the options, he concluded that the off-campus option had been more valuable for him because of its demand for application of what was being learned. Finally, one recent graduate who intends to pursue a Ph.D. noted her concerns regarding the acceptability of a non-residential degree in traditional academic circles. Still, she noted: "I have no qualms as to the quality of the program."

One recent graduate noted that he was thoroughly pleased with the program. Like many other students, he had not been able to afford to return to campus full-time. He had spent several years investigating available off-campus programs before coming to the conclusion that the U.C. program was the "best program of its type offered."

The Evaluation Questionnaire asked students: "If you knew then what you know now, would you still enroll in the program?" Of those responding, 79.1 percent indicated that they would. Some 96.6 percent indicated that they would recommend it to others. This, obviously, is strong evidence of student satisfaction with the quality of their educational experience.

Program Impacts

Part of the impetus for the development of the non-residential program was to meet the educational needs of administrators in the health care field. To that end, the program was designed to have immediate impact. Learning Resource Units were written to be competency-based; they were to provide working professionals with the skills and knowledge they needed to be more effective. The success of the program, then, can be partially judged by the ability of students to impact their present job situations.

The Unit Evaluation form allowed students to indicate whether the Unit's Student Performance Evaluation or assignment "produced useful skills and knowledge related to my job." In 62.1 percent of the cases, students indicated that it had. Another item asked students to indicate more generally how they had benefitted from using the unit. Some 51.7 percent of the responses stated that students were learning skills and knowledge that they could apply to their current job situation; 69.1 percent felt that they would probably be able to use the skills and knowledge sometime in the future.

The questionnaire mailed in August, 1978, asked students if they had "made any changes in your present organization as a result of this program." Some 61.1 percent replied affirmatively. Typical changes cited were "improved planning and administration," "improved management relations within my division," and the new ability to write the "demographic and health status sections of the agency's Health Systems Plan." Of those 38.9 percent responding negatively to the question, many indicated that they were simply not in a position or had not been with the program long enough to enact change.

Another question in that same instrument read: "What competencies learned from the program have you continued to use after completion of the Learning Resource Units (LRUs)?" The percent of respondents checking each item follows:

| | |
|---|---|
| 76.1 percent | Administration |
| 69.6 percent | Planning |
| 46.7 percent | Data Management |
| 35.9 percent | Community Health Estimates (Epidemiology) |
| 9.8 percent | Other |
| 2.2 percent | None |

The high percentage of responses associated with administrative and planning competencies should be noted in terms of the program's goal of meeting the needs of administrators in the health care field. Also of note is that only two students (2.2 percent) indicated no on-the-job program benefits.

Finally, a portion of the exit interviews with program graduates focused on any impacts the program had had on their job performance or any job-related changes they had enacted as a result of the program. Not surprisingly, respondents had some difficulty recalling specific incidents over the entire time during which they had been students; they also expressed some difficulty in separating program effects from the increased sophistication they would normally acquire over time (maturation effects). However, all were able to describe at least one program-related job impact; many were able to recall several others. One graduate stated succinctly: "It has had a tremendous impact."

Another graduate, an HSA director, describes his experiences as follows: "This agency was in its infancy at the time I began the program and the Units (especially the planning ones) helped to develop the agency and my career . . . . The program was perfect for my needs at the time."

Several more specific impacts are noteworthy. One student described a "management analysis" she conducted of her department for an administration LRU. She called the results "very revealing" since the perceptions of the board of health, administrative, and supervisory level staff all differed. As a result, division objectives and planning efforts were clarified and for the first time put into writing.

Another student reported that this same assignment contributed at least indirectly to internal management changes within his agency. Thus goals, were more effectively met. Still another student developed an Affirmative Action manual, in connection with an administration LRU, which is now used by his agency.

Grant proposal writing and plan development are other areas where students noted impacts. One student has written several grant applications since she began the program. Her experience with the Data LRU's enabled her to unearth demographic information even her supervisor did not know existed. Another student produced a grant proposal as part of his coursework. It was not funded but was used by his agency to reorganize an existing program.

Students also point to the influence of the planning LRU's. One graduate's hospital was the first in its state to produce a plan. Another graduate won her state's yearly award for the best regional plan (out of twelve regions), an accomplishment she attributes, at least in part, to the skills gained from the non-residential program.

All program graduates are required to complete a nine-credit hour Comprehensive Action Project (CAP). This is a major project which is designed to bring about improved levels of community health or improved delivery of health services. A listing of CAP projects completed as of August, 1978 presented in Table 11; as the majority of the titles imply, all are designed to implement change.

Several program graduates report that the program has enlarged their scope and has increased their confidence in their own capabilities. They speak of these attributes with enthusiasm, obviously sensing a positive reflection in their job performance. Results of the August evaluation questionnaire support the reports of graduates; 68.9 percent of the respondents indicated that the program had given them an improved

awareness of their own capabilities.

The issue of increased job mobility is difficult to address. Adequate records have not been maintained on students' employment while in the program; any upward mobility trends would be confounded anyway by the increased sophistication acquired through experience alone. However, three of the program graduates have changed jobs just prior to or after completing the program. One is now an HSA director, another serves as a planner, and the third is administrator for one of the state alconolism regions in Ohio. All attribute these positions of increased responsibility at least in part to their experiences with the non-residential program. Another graduate has had two job offers from health systems agencies since completing the program; still another intends to change positions shortly, a change she would not be able to make without a Master's degree.

Of course, it can be argued that the increased job mobility is not unique to the non-residential program but may be attributed to the advanced degree alone. The distinguishing factor is the accessibility; a large number of non-residential students report that they would not otherwise have had access to traditional graduate education.

Finally, the exit interviews have identified at least one important unintended benefit of the program. Largely due to contact at Cluster meetings, a seriés of professional relationships between students scattered over relatively large geographic areas has evolved. Students report that they have begun to use other students as resources in their job situations, and that communication between agencies and regions is often facilitated. This is particularly true of the Alcoholism Cluster students, who attended an initial three-week on-campus session and whose travel to and from Cluster meetings was subsidized by the Ohio Health Department. As one graduate of the Alcoholism Cluster reports, he developed many new ideas from being around his fellow students and can now more easily find out what is going on in other agencies. He called these colleagues a "challenging and dedicated peer group."

These and other examples lead to the conclusion that the program has indeed had some important impact on the health field, as well as on individual students. Much of the data come from student reports and are thus subject to the biases and limitations of qualitative information. It is not possible to judge the magnitude of the impact, but it is safe to conclude that some desired change has resulted. Assessing the magnitude of that change or its relative benefits cannot be accomplished without the employment of a comparison or control group, and a long-range study design.

Special Problems for Non-Residential Students

Non-residential students have not been only complimentary; they have also been quite vocal about the problems they experience with the program. During the exit interviews, many pointed to the program's initial disorganization and the concomittant frustrations that were produced. They do, however, note improvement, and it is believed that this complaint will be greatly alleviated over time.

Of greater concern, however, are problems with administrative

delays. Reports of the program graduates are verified by questionnaire data. When asked about administrative delays, 56.5 percent noted delays in receiving grades, 43.5 percent noted delays in receiving textbooks, and 32.9 percent indicated inadequate advance notice of Cluster meetings. While the textbook delays can be attributed to the University bookstore, the other two items are clearly problems which must be resolved internally.

Finally, maintaining motivation has evolved as a special problem for non-residential students. Students often report feelings of isolation; they have limited regular faculty-student or student-student contact, and all have family and job responsibilities which often assume priority over coursework. In fact, when asked what would facilitate motivation to complete the LRUs, 58.7 percent of those responding indicated greater "self-discipline." However, 51.4 percent also indicated "more communication between faculty and students."

A similar questionnaire item asked what type of interaction would be most effective in aiding completion of the Units. Again, the need for faculty-student contact was ranked high (46.7 percent of those responding). Interestingly enough, another one-third of respondents indicated that student-student contact would be most helpful. Students also wanted more opportunities to be on the University campus, and some indicated a willingness to devote summer vacation time.

The program's future directions will address these issues. Greater attempts will be made to foster student motivation. Attendance at Cluster meetings will receive more emphasis, both for students and faculty members. Students will be urged to form local study groups. Cluster meetings for students in the Ohio area will be held more frequently on the University campus. Finally, a Summer Institute program of intensive week-long credit courses, on the University campus, will be implemented.

Future Evaluation Efforts

As a result of current evaluation efforts, problem areas have been identified, and adjustments in the delivery system or adminstration have been made. Impact data acquired thus far has been largely anecdotal or has come from a sample whose representation of the total student population must be questioned. While this information, coupled the perceptions and experience of the program faculty, has had great utility, its generalizability is severely limited.

After three full years of operation, the program has grown beyond the developmental state. The delivery system is now fully in place, modifications in the near future will probably be minimal. The time is appropriate for further evaluation research efforts to begin, efforts which would not only measure generalizable impacts but would also have implications for non-traditional approaches to education.

With minimal effort, the program can find ways to better monitor the performance of those students currently enrolled. Better records can be kept. Evaluation questionnaires can be employed on a yearly basis. Records of student-faculty contact (either by mail or telephone) can be logged, and attendance at all Cluster meetings can be recorded. Better predictors of success in the non-residential program might thus be developed.

Generalizable research, however, requires adequate resources. A comparison group of similar health care professionals not exposed to the program should be selected and followed over time so that their long-range impact may be compared with program students. Methods of tracking program graduates must be developed and implemented; job mobility should be recorded. Methods for adequately assessing impact should be developed. Of great interest would be an in-depth investigation of program drop-outs; they, too, should provide valuable clues in the search for those factors predicting success in the program.

TABLE 1

Sex Distribution of Non-Residential Students By Matriculated Year

| ACADEMIC YEAR | MALES | (%) | FEMALES | (%) | TOTAL |
|---|---|---|---|---|---|
| 1974-1975 | 6 | (54.5%) | 5 | (45.5%) | 11 |
| 1975-1976 | 27 | (61.4%) | 17 | (38.6%) | 44 |
| 1976-1977 | 34 | (66.7%) | 17 | (33.3%) | 51 |
| 1977-1978 | 45 | (51.7%) | 42 | (48.3%) | 87 |
| Totals | 112 | (58.0%) | 81 | (42.0%) | 193 |

TABLE 2

Ethnic Background of Non-Residential Students By Year Matriculated

| ACADEMIC YEAR | AMERICAN CAUCASIAN | AFRO AMERICAN | AMERICAN INDIAN | ASIAN | TOTAL |
|---|---|---|---|---|---|
| 1974-1975 | 11 | - | - | - | 11 |
| 1975-1976 | 37 | 7 | - | - | 44 |
| 1976-1977 | 45 | 6 | - | - | 51 |
| 1977-1978 | 73 | 10 | 3 | 1 | 87 |
| Totals | 166 | 23 | 3 | 1 | 193 |
| Percent | (86.0%) | (11.9%) | (1.5%) | (0.5%) | |

TABLE 3

Non-Residential Students With Advanced Degrees

| TYPE OF DEGREE | NUMBER OF STUDENTS |
|---|---|
| M.D. | 2 |
| D.D.S. | 3 |
| D.Pod. | 2 |
| Ph.D. | 1 |
| Master of Nursing | 2 |
| Other Master's Degrees | 14 |
| Total | 24 |

TABLE 5

Employment Categories Of All Non-Residential Students September, 1978

| TYPE OF POSITION HELD | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| Administrators; Heads of Programs or Agencies | 75 | 38.9% |
| Assistant- Administrators | 20 | 10.4% |
| Health Technicians (Sanitarians, Environmentalists, Consultants, etc.) | 21 | 10.9% |
| Case Worker/Social Worker | 18 | 9.3% |
| Educators; Health Educators | 15 | 7.8% |
| Nurses | 10 | 5.2% |
| Planners | 8 | 4.1% |
| Researchers | 5 | 2.6% |
| Nutritionists | 3 | 1.6% |
| Physical Therapists | 3 | 1.6% |
| Lab Technicians | 3 | 1.6% |
| Physicians | 2 | 1.0% |
| Dentist | 1 | 0.5% |
| Other/Unknown | 9 | 4.7% |
| Total | 193 | 100.2% |

TABLE 6

Number and Status of Non-Residential Students By Year Matriculated September, 1978

| ACADEMIC YEAR | TOTAL STUDENTS | ACTIVE | INACTIVE | GRADUATED |
|---|---|---|---|---|
| 1974-1975 | 11 | 6 | - | 5 |
| 1975-1976 | 44 | 20 | 18 | 6 |
| 1976-1977 | 51 | 28 | 16 | 7 |
| 1977-1978 | 87 | 57 | 29 | 1 |
| Total | 193 | 111 | 63 | 19 |

TABLE 7

Status of Non-Residential Students By Cluster Assignment September, 1978

| CLUSTER | GRADUATED | ACTIVE | INACTIVE | ATTRITION RATE |
|---|---|---|---|---|
| Ohio | 4 | 36 | 30 | 42.9% |
| Free | 6 | 13 | 4 | 17.4% |
| Alcoholism | 4 | 37 | 13 | 24.1% |
| Tennessee | 5 | 11 | 3 | 15.8% |
| Cincinnati Health Dept. | - | 12 | 12 | 50.0% |
| Navajo | - | 2 | 1 | 33.3% |
| Totals | 19 | 111 | 63 | |

TABLE 8

Mean Progress Rates (Credit Hours Completed per Quarter) For Active Students and Program Graduates By Cluster; September, 1978

| CLUSTER | STATUS ACTIVE (N) | GRADUATED (N) | ALL STUDENTS |
|---|---|---|---|
| Ohio | 2.6 (36) | 7.3 (4) | 3.1 (40) |
| Free | 2.7 (11) | 8.5 (6) | 4.7 (17) |
| Alcoholism | 2.7 (36) | 7.2 (4) | 3.2 (40) |
| Tennessee | 2.5 (11) | 3.9 (5) | 2.9 (16) |
| Cincinnati Health Department | 1.7 (11) | - | 1.7 (11) |
| Navajo | 2.6 (2) | - | 2.6 (2) |
| Means | 2.5 (107)* | 6.8 (19) | 3.1 (126) |

*Data unavailable for four students

TABLE 9

Mean Progress Rate For Active Students and Program Graduates By Sex September, 1978

| SEX | STATUS ACTIVE (N) | GRADUATED (N) | ALL STUDENTS |
|---|---|---|---|
| Males | 2.4 (67) | 5.7 (11) | 2.9 (78) |
| Females | 2.8 (40) | 8.2 (8) | 3.7 (48) |
| All Students | 2.5 (107)* | 6.8 (19) | 3.1 (126) |

* Data unavailable for four students

TABLE 10

Mean Completion Time per Credit Hour
For Each Learning Resource Unit
September, 1978

| LRU | CREDIT HOURS | NUMBER OF RESPONSES | MEAN TIME (HRS.) PER CREDIT HOUR |
|---|---|---|---|
| Core Area: Data Management | | | |
| 601 | 1 | 17 | 33 |
| 602 | 1 | 18 | 47 |
| 603 | 1 | 10 | 29 |
| 604 | 1 | 7 | 24 |
| 605 | 1 | 3 | 28 |
| 606 | 1 | 6 | 27 |
| 607 | 1 | 3 | 11 |
| 608 | 1 | 1 | 19 |
| 664 | 3 | 3 | 21.7 |
| 665 | 3 | 2 | 16.5 |
| Core Area: Applied Administrative Theory | | | |
| 611 | 1 | 22 | 31.5 |
| 612 | 1 | 13 | 29 |
| 613 | 1 | 16 | 26 |
| 614 | 1 | 4 | 42.3 |

TABLE 10 (con't.)

| LRU | CREDIT HOURS | NUMBER OF RESPONSES | MEAN TIME (HRS.) PER CREDIT HOUR |
|---|---|---|---|
| 615 | 1 | 2 | 34 |
| 616 | 1 | 2 | 32.5 |
| 651 | 3 | 3 | 56.7 |
| 655 | 3 | 8 | 30.7 |
| Core Area: Fundamentals of Health and Disease | | | |
| 701 | 1 | 23 | 35 |
| 702 | 1 | 23 | 38 |
| 703 | 1 | 17 | 49 |
| 704 | 3 | 8 | 21.3 |
| ore Area: Fundamentals of Health Care Systems | | | |
| 625 | 3 | 5 | 25 |
| 681 | 1 | 3 | 41 |
| 682 | 1 | 3 | 43 |
| 683 | 1 | 2 | 32.5 |
| Core Area: Applied Health Systems Planning | | | |
| 711 | 3 | 16 | 24 |
| 712 | 3 | 7 | 27 |
| Core Area: Consumer Advocacy & Ethical Issues | | | |
| 621 | 4 | 5 | 32 |
| 35 | 3 | 10 | 42.3 |
| 641 | 1 | 16 | 33 |

TABLE 10 (con't.)

| LRU | CREDIT HOURS | NUMBER OF RESPONSES | MEAN TIME (HRS.) PER CREDIT |
|---|---|---|---|
| 642 | 2 | 9 | 22 |
| 643 | 1 | 3 | 26 |
| 644 | 1 | 4 | 28 |
| 645 | 1 | 3 | 33 |
| 646 | 2 | 1 | 9 |
| Total | | | 30.6 |

**TABLE 11**

**A Listing of Comprehensive Action Projects Completed by Non-Residential Program Graduates**

Community Health Information and Commercial Media: An Access Model

Alcohol and Addiction and the Judicial Process

Hypertension Control in a High Risk Community

Cooperative Orientation for Employees in Community Agencies

Preparation of Goals for a Dividion of Public Health Nursing: A Comprehensive Action Project

A Study in Cost Containment and its Effects on a 250-bed Hospital

Planning Management Model: A System for Preventive Health Care in a Secondary Pediatric Setting

Analysis of Health Manpower Resources

Formulation and Implementation of a Short and Immediate Range Plan for Aitkin Community Hospital Home

Analysis of Health Manpower Resources

Childrens' Dental Care Program

Chattanooga-Hamilton County Carbon Monoxide Research Project

The Chattanooga-Hamilton County Epilepsy Foundation

Plan for making Rural Primary Care Centers within Southeast Tennessee Cost-Effective

A Prevention Manual for Alcohol Health Educators

An Analysis of Two Delivery Models Used at a Neighborhood Health Center

Employee Assistance Program for City of Toled Mucicipal Employees

## SCHEDULE OF LEARNING RESOURCE UNIT OFFERINGS

Learning Resource Units (LRU) in the non-residential program are offered according to a definite schedule over the year. Students using this schedule in designing their program can be assured that the LRUs they schedule in writing their Learning Program Design will be offered as planned. The core areas of the curriculum are listed below. All developed LRUs in a core area will be offered during the quarter(s) in which that core area is scheduled. See the section "Description of Learning Resource Units Available" for the LRUs that comprise each core area.

### AUTUMN QUARTER

Applied Administrative Theory
Data Management
Learning Program Design
Miscellaneous LRUs including:
- Comprehensive Action Project
- Directed Studies
- Selected Others

### WINTER QUARTER

Fundamentals of Health and Disease
Applied Health Systems Planning
Miscellaneous LRUs including:
- Comprehensive Action Project
- Directed Studies
- Selected Others

### SPRING QUARTER

Fundamentals of Health Care Systems
Consumer Advocacy and Ethical Issues
Miscellaneous LRUs including:
- Comprehensive Action Project
- Directed Studies
- Selected Others

### SUMMER QUARTER

Applied Health Systems Planning
Data Management
Miscellaneous LRUs including:
- Comprehensive Action Project
- Directed Studies
- Selected Others

If demand justifies it, Special Summer intensive didactic sessions will be held on campus. During these sessions students may complete up to four quarter credits during each one-week stay on campus. While not required, these sessions allow many students to utilize vacation time for degree completion. Separate brochures will describe the session.

## DESCRIPTION OF AVAILABLE

## LEARNING RESOURCE UNITS

All Learning Resource Units are competency based. Each has clear and specific learning objectives. Each unit listed below will be available as scheduled for subsequent years.

CORE AREA: APPLIED ADMINISTRATIVE THEORY

21-136-611 Management Theory and Practice: Introduction to Management. ONE Graduate credit. This unit deals with the importance of management in the field of health care. Students will be able to apply current management ideas to specific situations. Copyright 1977

21-136-612 Management Theory and Practice: Personnel. ONE Graduate credit. Investigates personnel functions and their relationship to the total organization. Students will be able to demonstrate an understanding of matching job application skills to job needs and be able to recognize a number of problems the on-the-job applicant faces. Copyright 1977
Prerequisite: 21-136-611

21-136-613 Management Theory and Practice: Management by Objectives. ONE Graduate credit. Students will be able to design a complete MBO program using his/her current job by using the guidelines and criteria described. Copyright 1977
Prerequiaite: 21-136-611

21-136-614 Management Theory and Practice: Interdisciplinary Relationships. ONE Graduate credit. Students will gain a basic understanding of accounting, operations management, financial management and marketing management along with the benefits each can provide to health field. Students will gain a basis for problem-solving in his/her own organizations using these concepts. Copyright 1977.
Prerequisite: 21-136-611

21-136-615 Management Theory and Prictice: Organizational Behavior. ONE Graduate credit. Students will be able to recognize several theories of organizational behavior and, using these theories, analyze their own job situation and work environment. Copyright 1977
Prerequisite: 21-136-611

CORE AREA: APPLIED ADMINISTRATIVE THEORY

21-136-616 Management Theory and Practice: Systems Theory.
ONE Graduate credit. Students will be able to apply the concepts presented to a diversity of disciplines and, from that, form personal opiinions of the value and logic of systems theory. Copyright 1977
Prerequisites: 21-136-611

21-136-627 Labor Relations in the Health Care Industry
FOUR Graduate credits. The student will develop an in-depth knowledge of labor law, ELOC, grievance procedures, collective bargaining and other critical issues in labor-management relations. New legislation affecting health care organization will be emphasized. Copyright 1978

21-136-651 Quantitative Analysis for Health Planning.
THREE Graduate credits. Upon successfull completion, students will be able to: (1) write a report to a superior making detailed recommendations on the applicability of the quantitative analysis approach to student's agency (2) analyze a problem at the student's agency using at least two specific quantitative analysis techniques in a report to the student's superior (3) in a written report and using a quantitative analysis perspective, critique the reports previously sent from the point of view of the manager to whom these reports were submitted. Copyright 1977.

21-136-655 Leadership/Management Self-Assessment.
THREE Graduate credits. Successful completion of this unit will allow students to: (1) describe his/her leadership/managerial behavior based on information gained through self-scored instruments and colleagues feedback (2) evaluate the effectiveness of the leadership style the student is currently using (3) from the theoretical framework presented, choose the most appropriate style for the student's particular work setting and (4) formulate and implement a plan for increasing the effectiveness of one's leadership/management behavior.

CORE AREA: DATA MANAGEMENT

21-136-601 Data for Health Planning: The Census.
ONE Graduate credit. The student will be able to demonstrate the ability to locate the use Census data. Copyright 1976.

21-136-602 Data for Health Planning: Basic Population Descriptors.
ONE Graduate credit. The student will develop sufficient understanding of Census information and the attendant indices to be able to use it in analyzing local problems. Specifically, the student (1) will be able to construct basic indices of the community including: Normal Family Index, Poverty Ratio, Overcrowding Index and others (2) will be able to define a relevant community for which aggregate census data can be obtained, calculate a population pyramid, sex ratio, youth dependency ratio and others, and be able to demonstrate understanding of their use. Copyright 1976.

21-136-603 Data for Health Planning: Migration and Mobility
ONE Graduate credit. Students will demonstrate an understanding of migration issues, problems of migration data and implications for health planning through: (1) construction and interpretation of a Place of Residence Table (2) interpretation of local data (3) an analysis of health care in terms of local data. Copyright 1976.

21-136-604 Data for Health Planning: Vital Statistics I.
ONE Graduate credit. Student will be able to demonstrate an understanding of: (1) the nature and purpose of Vital Statistics and distinguish between registrations and census (2) mortality as an index of community health and various mortality rates. Copyright 1975.

21-136-605 Data for Health Planning: Vital Statistics-II.
ONE Graduate credit. Student will be able to: (1) demonstrate understanding of the utility and limitations of standardized rates and be able to calculate Direct and Indirect Standardized Rates using data from own area (2) compute race specific, neonatal and infant mortality rates for own area and state several different methods of calculation (3) demonstrate understanding of qualities of various measures and the meaning of the resulting rates. Copyright 1975.

CORE AREA: DATA MANAGEMENT

21-136-606 Data for Health Planning: Vital Statistic III.
ONE Graduate credit. Students will be able to: (1) define, calculate for his/her own area, and interpret the Crude Birth Rate, General Fertility Rate and draw specfific implications from these data (2) explain,calculate for his/her own area and draw specific implications from data regarding Child-Woman Ratio and Children-Ever-Born.

21-136-607 Data for Health Planning: Morbidity Measures.
ONE Graduate credit. Students will be able to calculate and interpret the standard rates used to assess the health of a population in public health and epidemiology and draw some implications from the data. Students will demonstrate his/her awareness of the issues underlying the measurement of disease versus the measurement of health. Copyright 1975.

21-136-608 Data for Health Planning: The Life Table.
ONE Graduate credit. Given a Life-Table, students will be able to extract information and use it in making specific decisions. Copyright 1975.

21-136-664 Evaluation Research: Methods of Determining Program Effects. THREE Graduate credits. Students will become familiar with the procedures and theories necessary to conduct evaluation research. Students will be able to: (1) use evaluation research in organizational decisionmaking (2) diagnose a majority of the evaluation research problems with which they are confronted (3) provide specific recommendations on how program outcomes can be evaluated using both experimental and/or quasi-experimenta research designs and the benefit-cost calculus (4) actually perform the evaluation research to a limited extent. Copyright 1976.

21-136-665 Methods of Rational Decision-Making and the Organizational Function of Evaluation Research.
THREE Graduate credits. Students will know the procedures necessary to complete an evaluation research project. Students will be able to: (1) identify and utilize data necessary for the calculation of the economic benefits of public programs (2) select the appropriate method of discounting future benefits and carry out the calculations or explain how the calculations would be done (3) identify the shortcomings of benefit-cost analysis in particular instances of its application (4) identify the effects of public programs on the distribution of income, wealth, social and political rights. Copyright 1976.
Prerequisite: 21-136-664 or a general knowledge of evaluation research methodology.

CORE AREA: FUNDAMENTALS OF HEALTH AND DISEASE

21-136-701 Community Health Estimates. ONE Graduate credit. The student will be able to: (1) define epidemiology from three prespectives (2) apply a five-step model of epidemiology in estimating health parameters. Copyright 1977.

21-136-702 History and Uses of Community Health Estimates. ONE Graduate credit. The student will be able to (1) define the relation of epidemiology to health and social sciences (2) to identify how these interrelationships may influence estimating of community health (3) to describe the historic evolution of community health estimating (4) to cite major, historically important studies of community health and (5) to define the term, "Web of causation". Copyright 1977.

21-136-703 Community Estimation Techniques. ONE Graduate credits. Students will be able to: (1) determine when standardization is appropriate (2) know standard ratios for major demographic variables (3)differentiate between various standardization techniques, and (4) apply appropriate techniques to data sets.
NOTE: This is an introductory course only. Students wanting more intensive work in measurement techniques are encouraged to select 21-136-704.
Prerequisite: 21-136-701 adn 702.
Copyright 1977.

21-136-704 Measurements in Community Health Estimates. THREE Graduate credits. Students will be able to design and carry out programs of research to provide information about community health status. Specifically, the student is expected to: (1) describe major research designs and evaluate their strengths and weaknesses (2) describe in epidemiologic terms the community health aspect to be investigated (3) select research designs appropriate to the investigation of specific community health questions. (4) identify sources of data to be used in carrying out investigations (5) calculatevarious rates and ratios needed to implement research designs (6) assemble the calculations and data into tables (7) communicate his or her conclusions in concise written form (8) evaluate the effectiveness of research (reported) in the community health literature.
Prerequisites: 21-136-701, 702, and 703.
Copyright 1976.

CORE AREA: APPLIED HEALTH SYSTEMS PLANNING

21-136-711 Applied Health Systems Planning: Acute Care. THREE Graduate Credits. This unit is designed to increase the student's awareness of the acute care resources in their community, to understand and analyze the issues surrounding the cost, utilization and methods designed to promote quality assurance and cost containment objectives. Students who complete this unit will be able to analyze need and resource requirements and will be able to apply planning guidelines and criteria, patient utilization and relevance indices, demographic characteristics, projection techniques and national health planning guidelines to health care need and resource determinations. Copyright 1977.

21-136-712 Applied Health Systems Planning: Primary Care. THREE Graduate credits. This course is designed to (1) explore the role of primary health care within the structure of the American health care system (2) to examine the historical, political and structural factors which have led to its current status (3) to critically examine alternative settings in which primary health care is delivered (4) to develop skills in the determination of need and demand for primary health care service requirements given alternative patterns of delivery and financing and (5) to assess the impact of demographic, economic and cultural characteristics of the population upon utilization of primary health care services and the implications of these findings for health care policy. Copyright 1977.

CORE AREA: FUNDAMENTALS OF HEALTH CARE SYSTEMS

21-136-625 Economics in the Health Care System.
THREE Graduate credits. An examination of the health care system from the perspective of the economist, i.e., allocation of scarce resource (health services) under conditions of indefinite demand, productivity, supply-demand, costs pricing and their-party payments. Students are asked to perform a series of tasks that relate the theory given to their agencies and institutions. Copyright 1976.

21-136-681 Credentialing: Introduction.
ONE Graduate credit. This unit will enable the student to: (1) differentiate between components of the credentialing process in terms of: licensure, certification, accreditation, and registration. Included should be: a) listing several health workers of the above, b) listing the general requirements in becoming credentialed in each of the above categories, and c) listing legalities imposed by each of the above processes. (2) Evaluate the relative advantages and disadvantages of the credentialing process. Copyright 1978.
Prerequisite: A basic understanding and knowledge of the health care field.

21-136-682 Credentialing: Licensure.
ONE Graduate credit. This unit will enable the student to: (1) compare and contrast the licensure process of American-trained physicians, foreign medical graduates and (registered) nurses in his/her state with the process in Ohio (2) to evaluate the moral and legal implication of F.M.G.s in the U.S. health care system (3) identify and evaluate the implications of the licensing process in his/her institution (4) to list highlights in history of medical licensure in the U.S. (5) to evaluate the relative advantages and disadvantages of the licensure process. Completion of 21-136-681 (Credentialing: Introduction) is recommended but not required. Copyright 1978.

21-136-683 Credentialing: Alternatives to Licensure.
ONE Graduate credit. This unit will enable the student to: (1) identify the reasons for the D.H.E.W.s request for a moratorium on licensure (2) list and differentiate seven major alternatives to the licensure process (3) construct the Hershey models of the concept of Institutional Licensure (from the Rush-Presbyterian Study, 1975) (4) to list several (at least two) advantages and disadvantages of each major alternative to the licensure process. Completion of 21-136-681 (Credentialing: Introduction) and 21-136-682 (Credentialing: Licensure) is recommended but not required. Copyright 1978.

CORE AREA: CONSUMER ADVOCACY AND ETHICAL ISSUES

21-136-621 Concepts of Community. FOUR Graduate credits. Students will be able to knowledgeably select from a variety of theoretical and analytical concepts those which are most appropriate in helping with an analysis of health problems at a community level. He/She will be able to demonstrate understanding of these concepts and be able to apply them to situations in the studnet's own community. Copyright 1976:

21-136-635 Appalachian Culture. THREE Graduate credits. Students will be able to: (1) compare and contrast the cultural attributes of Appalachian culture and the basis for that culture with at least one other cultural (sub-cultural, racial, or ethnic) group in terms of values, attitudes, kinship, religion, and personality (2) write a ½ page paragraph describing three ways in which Appalachians qualify as an ethnic group based on the readings of Novak, Whisnat ..... (others may be started later) (3) describe in one page three misconceptions (stereotypes) about Appalachian people which have prevented their acceptance in urban areas (4) identify four ways in which migration affects lifestyles of Appalachians and give one illustration of each (5) allow people to feel/ experience the kinds of attitudes, values, personality traits, which are inculcated by being raised in an Appalachian culture. Copyright 1977.

21-136-771 Ethical Issues in Health (I). ONE Graduate credit. Upon completion of this Unit the student will be able to: (1) define and analyze the basic terms used in ethics (2) identify and analyze ethical positions which underly and influence present thinking in health care issues. Copyright 1979.

21-136-772 Ethical Issues in Health (II). ONE Graduate credit. Upon completion of this Unit the student will be able to: (1) formulate basic ethical issues in allocation problems pertinent to their agencies (2) examine ethical assumptions underlying present policies, and (3)use an ethical viewpoint to prepare viable solutions to problems of resources allocation. Copyright 1979.

## MISCELLANEOUS

### Learning Program Design

21-136-885 Learning Program Design. ONE Graduate credit. Students will prepare a document in a specified format which will guide them toward the educational objectives they set as being appropriate to their career goals. This course is taken only at the onset of the student's program. Copyright 1978.

### Comprehensive Action Project

21-136-888 Comprehensive Action Project. VARIABLE Graduate credits (1-9). Permission of advisor required. CAP is a major, individualized learning experience in which the student tests and demonstrates ability to bring about significant action to improve community health and/or improve the delivery of health care systems. It is used on an intergrating experience to aid in meshing theory and practice. Copyright 1977.

### Directed Studies

21-136-673

through

21-136-679 Directed Studies are available with prior permission of the Program. A brief proposal outlinging the nature of the learning objectives for the directed study, the work you intend to do, the resources to be utilized, and the nature of the final product should be sent to your Cluster Manager prior to registration. The 673 number refers to general projects; course numbers 674-679 refer to specific core areas.

FUNDAMENTALS OF HEALTH AND DISEASE

31-136-706 Epidemiology of Alcoholism. ONE to TWO Graduate credit(s). This is a reading course. Students will be able to critique major classical and current works in this area and to discuss the major strengths and weaknesses of each. Those choosing the two credit option will design, not necessarily carry out, a research project in a subfield of alcoholism.
Prerequisites: 31-136-701, 702 and 703

31-136-707 Epidemiology of Mental Health. ONE or TWO Graduate credit(s). A reading course with research option. Students will be able to critique major past and current studies in this area and to discuss the methodological strengths and weaknesses of each. Those choosing the two credit option will design, not necessarily carry out, a research project in a subfield of mental health.
Prerequisites: 31-136-701, 702 and 703